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Terms	Documents
L14 and optimiz\$6	4

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09/421,846

**Set Name**   **Query**  
side by side

**Hit Count**   **Set Name**  
result set

*DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

<u>L15</u>	L14 and optimiz\$6	4	<u>L15</u>
<u>L14</u>	L12 and search engine\$1	8	<u>L14</u>
<u>L13</u>	L12 and constraint descriptor\$1	0	<u>L13</u>
<u>L12</u>	((707/516)!.CCLS. )	87	<u>L12</u>
<u>L11</u>	L8 and (translat\$4 same query)	158	<u>L11</u>
<u>L10</u>	L9 and (translat\$4 same logical expression\$1)	0	<u>L10</u>
<u>L9</u>	L8 and logical expression\$1	24	<u>L9</u>
<u>L8</u>	search engine\$1	2347	<u>L8</u>
<u>L7</u>	L6 and search engine\$1	3	<u>L7</u>
<u>L6</u>	L5 and logical expression\$1	8	<u>L6</u>
<u>L5</u>	(query same SQL same translat\$4)	281	<u>L5</u>
<u>L4</u>	5913214.pn.	2	<u>L4</u>
<u>L3</u>	6102969.pn.	2	<u>L3</u>
<u>L2</u>	5826258.pn.	3	<u>L2</u>
<u>L1</u>	6052693.pn.	2	<u>L1</u>

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**Search Results - Record(s) 1 through 24 of 24 returned.**

☐ 1. Document ID: US 6356936 B1

L9: Entry 1 of 24

File: USPT

Mar 12, 2002

US-PAT-NO: 6356936

DOCUMENT-IDENTIFIER: US 6356936 B1

TITLE: Relevance clause for computed relevance messaging

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 6351747 B1

L9: Entry 2 of 24

File: USPT

Feb 26, 2002

US-PAT-NO: 6351747

DOCUMENT-IDENTIFIER: US 6351747 B1

TITLE: Method and system for providing data to a user based on a user's query

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: US 6341277 B1

L9: Entry 3 of 24

File: USPT

Jan 22, 2002

US-PAT-NO: 6341277

DOCUMENT-IDENTIFIER: US 6341277 B1

TITLE: System and method for performance complex heterogeneous database queries using a single SQL expression

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments				
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KWIC	Draw Desc	Image
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☐ 4. Document ID: US 6339832 B1

L9: Entry 4 of 24

File: USPT

Jan 15, 2002

US-PAT-NO: 6339832

DOCUMENT-IDENTIFIER: US 6339832 B1

TITLE: Exception response table in environment services patterns

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments				
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KWIC	Draw Desc	Image
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☐ 5. Document ID: US 6332163 B1

US-PAT-NO: 6332163

DOCUMENT-IDENTIFIER: US 6332163 B1

TITLE: Method for providing communication services over a computer network system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
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☐ 6. Document ID: US 6326962 B1

L9: Entry 6 of 24

File: USPT

Dec 4, 2001

US-PAT-NO: 6326962

DOCUMENT-IDENTIFIER: US 6326962 B1

TITLE: Graphic user interface for database system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 7. Document ID: US 6289382 B1

L9: Entry 7 of 24

File: USPT

Sep 11, 2001

US-PAT-NO: 6289382

DOCUMENT-IDENTIFIER: US 6289382 B1

TITLE: System, method and article of manufacture for a globally addressable interface in a communication services patterns environment

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 8. Document ID: US 6263362 B1

L9: Entry 8 of 24

File: USPT

Jul 17, 2001

US-PAT-NO: 6263362

DOCUMENT-IDENTIFIER: US 6263362 B1

TITLE: Inspector for computed relevance messaging

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 9. Document ID: US 6263328 B1

L9: Entry 9 of 24

File: USPT

Jul 17, 2001

US-PAT-NO: 6263328

DOCUMENT-IDENTIFIER: US 6263328 B1

TITLE: Object oriented query model and process for complex heterogeneous database queries

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 10. Document ID: US 6256664 B1

L9: Entry 10 of 24

File: USPT

Jul 3, 2001

US-PAT-NO: 6256664

DOCUMENT-IDENTIFIER: US 6256664 B1

TITLE: Method and apparatus for computed relevance messaging

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 11. Document ID: US 6256623 B1

L9: Entry 11 of 24

File: USPT

Jul 3, 2001

US-PAT-NO: 6256623

DOCUMENT-IDENTIFIER: US 6256623 B1

TITLE: Network search access construct for accessing web-based search services

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 12. Document ID: US 6205441 B1

L9: Entry 12 of 24

File: USPT

Mar 20, 2001

US-PAT-NO: 6205441

DOCUMENT-IDENTIFIER: US 6205441 B1

TITLE: System and method for reducing compile time in a top down rule based system using rule heuristics based upon the predicted resulting data flow

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 13. Document ID: US 6182067 B1

L9: Entry 13 of 24

File: USPT

Jan 30, 2001

US-PAT-NO: 6182067

DOCUMENT-IDENTIFIER: US 6182067 B1

TITLE: Methods and systems for knowledge management

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 14. Document ID: US 6151610 A

L9: Entry 14 of 24

File: USPT

Nov 21, 2000

US-PAT-NO: 6151610

DOCUMENT-IDENTIFIER: US 6151610 A

TITLE: Document display system using a scripting language having container variables setting document attributes

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 15. Document ID: US 6099575 A

L9: Entry 15 of 24

File: USPT

Aug 8, 2000

US-PAT-NO: 6099575

DOCUMENT-IDENTIFIER: US 6099575 A

TITLE: Constraint validity checking

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 16. Document ID: US 6021405 A

L9: Entry 16 of 24

File: USPT

Feb 1, 2000

US-PAT-NO: 6021405

DOCUMENT-IDENTIFIER: US 6021405 A

TITLE: System and method for optimizing database queries with improved performance enhancements

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 17. Document ID: US 5966126 A

L9: Entry 17 of 24

File: USPT

Oct 12, 1999

US-PAT-NO: 5966126

DOCUMENT-IDENTIFIER: US 5966126 A

TITLE: Graphic user interface for database system

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 18. Document ID: US 5940843 A

L9: Entry 18 of 24

File: USPT

Aug 17, 1999

US-PAT-NO: 5940843

DOCUMENT-IDENTIFIER: US 5940843 A

TITLE: Information delivery system and method including restriction processing

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 19. Document ID: US 5913215 A

L9: Entry 19 of 24

File: USPT

Jun 15, 1999

US-PAT-NO: 5913215

DOCUMENT-IDENTIFIER: US 5913215 A

TITLE: Browse by prompted keyword phrases with an improved method for obtaining an initial document set

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 20. Document ID: US 5870464 A

L9: Entry 20 of 24

File: USPT

Feb 9, 1999

US-PAT-NO: 5870464

DOCUMENT-IDENTIFIER: US 5870464 A

TITLE: Intelligent information routing system and method

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
------	-------	----------	-------	--------	----------------	------	-----------	-----------	-------------

KWIC	Draw Desc	Image
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☐ 21. Document ID: US 5864871 A

L9: Entry 21 of 24

File: USPT

Jan 26, 1999

US-PAT-NO: 5864871

DOCUMENT-IDENTIFIER: US 5864871 A

TITLE: Information delivery system and method including on-line entitlements

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 22. Document ID: US 5822747 A

L9: Entry 22 of 24

File: USPT

Oct 13, 1998

US-PAT-NO: 5822747

DOCUMENT-IDENTIFIER: US 5822747 A

TITLE: System and method for optimizing database queries

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 23. Document ID: US 5819255 A

L9: Entry 23 of 24

File: USPT

Oct 6, 1998

US-PAT-NO: 5819255

DOCUMENT-IDENTIFIER: US 5819255 A

TITLE: System and method for database query optimization

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 24. Document ID: US 5802518 A

L9: Entry 24 of 24

File: USPT

Sep 1, 1998

US-PAT-NO: 5802518

DOCUMENT-IDENTIFIER: US 5802518 A

TITLE: Information delivery system and method

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L8 and logical expression\$1

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09/421,846

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short listing



1 2 3 4 5 6 7 8 9 10




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**1** Logic-based approach to semantic query optimization 100%



Upen S. Chakravarthy , John Grant , Jack Minker  
ACM Transactions on Database Systems (TODS) June 1990  
Volume 15 Issue 2

The purpose of semantic query optimization is to use semantic knowledge (e.g., integrity constraints) for transforming a query into a form that may be answered more efficiently than the original version. In several previous papers we described and proved the correctness of a method for semantic query optimization in deductive databases couched in first-order logic. This paper consolidates the major results of these papers emphasizing the techniques and their applicability for optimizing rel ...

**2** A method for automatic rule derivation to support semantic query optimization 100%



Michael Siegel , Edward Sciore , Sharon Salveter  
ACM Transactions on Database Systems (TODS) December 1992  
Volume 17 Issue 4

The use of inference rules to support intelligent data processing is an increasingly important tool in many areas of computer science. In database systems, rules are used in semantic query optimization as a method for reducing query processing costs. The savings is dependent

on the ability of experts to supply a set of useful rules and the ability of the optimizer to quickly find the appropriate transformations generated by these rules. Unfortunately, the most useful rules are not always th ...

**3** Semantic query optimization in Datalog programs (extended abstract) 97%



Alon Y. Levy , Yehoshua Sagiv

Proceedings of the fourteenth ACM SIGACT-SIGMOD-SIGART symposium on Principles of database systems May 1995

**4** Stochastic query optimization in distributed databases 97%



P. E. Drenick , E. J. Smith

ACM Transactions on Database Systems (TODS) June 1993  
Volume 18 Issue 2

Many algorithms have been devised for minimizing the costs associated with obtaining the answer to a single, isolated query in a distributed database system. However, if more than one query may be processed by the system at the same time and if the arrival times of the queries are unknown, the determination of optimal query-processing strategies becomes a stochastic optimization problem. In order to cope with such problems, a theoretical state-transition model is presented that treats the s ...

**5** Quick and incomplete responses 96%



Chung-Dak Shum

Proceedings of the second international conference on Information and knowledge management December 1993

**6** The impact of logic programming on databases 95%



John Grant , Jack Minker

Communications of the ACM March 1992  
Volume 35 Issue 3

**7** Query Optimization in Database Systems 95%



Matthias Jarke , Jurgen Koch

ACM Computing Surveys (CSUR) June 1984  
Volume 16 Issue 2

**8** Materialized view maintenance and integrity constraint checking 94%



Kenneth A. Ross , Divesh Srivastava , S. Sudarshan

ACM SIGMOD Record , Proceedings of the 1996 ACM SIGMOD international conference on Management of data June 1996  
Volume 25 Issue 2

**9** Optimization techniques for queries with expensive methods 94%



Joseph M. Hellerstein

ACM Transactions on Database Systems (TODS) June 1998

Volume 23 Issue 2

Object-relational database management systems allow knowledgeable users to define new data types as well as new methods (operators) for the types. This flexibility produces an attendant complexity, which must be handled in new ways for an object-relational database management system to be efficient. In this article we study techniques for optimizing queries that contain time-consuming methods. The focus of traditional query optimizers has been on the choice of join methods and orders; selec ...

**10** Federated database systems for managing distributed, 92%



heterogeneous, and autonomous databases

Amit P. Sheth , James A. Larson

ACM Computing Surveys (CSUR) September 1990

Volume 22 Issue 3

A federated database system (FDBS) is a collection of cooperating database systems that are autonomous and possibly heterogeneous. In this paper, we define a reference architecture for distributed database management systems from system and schema viewpoints and show how various FDBS architectures can be developed. We then define a methodology for developing one of the popular architectures of an FDBS. Finally, we discuss critical issues related to developing and operating an FDBS.

**11** Modelling concepts for reasoning about access to knowledge 92%



Jonathan J. King

Proceedings of the 1980 workshop on Data abstraction, databases and conceptual modeling June 1980

There is growing agreement about the usefulness of putting semantic database constraints into explicit form that can be manipulated by various database management programs. Indeed, this is a prerequisite for building intelligent database mediators. These are programs that perform the task of a good database analyst: to pose the most effective and easily processed queries to help solve a problem. Semantic query optimization is a technique to exploit semantic ...

**12** Set query optimization in distributed database systems 92%



Bezael Gavish , Arie Segev

ACM Transactions on Database Systems (TODS) August 1986

Volume 11 Issue 3

This paper addresses the problem of optimizing queries that involve set operations (set queries) in a distributed relational database system. A particular emphasis is put on the optimization of such queries in horizontally partitioned database systems. A mathematical programming model of the set query problem is developed and its NP-completeness is proved. Solution procedures are proposed and

computational results presented. One of the main results of the computational experiments is that, ...

**13** Semantic query processing in object-oriented databases using deductive approach 92%

S. C. Yoon , I. Y. Song , E. K. Park

Proceedings of the fourth international conference on Information and knowledge management December 1995

**14** Predicate migration 92%

Joseph M. Hellerstein , Michael Stonebraker

ACM SIGMOD Record , Proceedings of the 1993 ACM SIGMOD international conference on Management of data June 1993  
Volume 22 Issue 2

The traditional focus of relational query optimization schemes has been on the choice of join methods and join orders. Restrictions have typically been handled in query optimizers by “predicate pushdown” rules, which apply restrictions in some random order before as many joins as possible. These rules work under the assumption that restriction is essentially a zero-time operation. However, today's extensible and object-oriented database systems allow users to define time-consuming ...

**15** On saying “Enough already!” in SQL 90%

Michael J. Carey , Donald Kossmann

ACM SIGMOD Record , Proceedings of the 1997 ACM SIGMOD international conference on Management of data June 1997  
Volume 26 Issue 2

In this paper, we study a simple SQL extension that enables query writers to explicitly limit the cardinality of a query result. We examine its impact on the query optimization and run-time execution components of a relational DBMS, presenting two approaches—a Conservative approach and an Aggressive approach—to exploiting cardinality limits in relational query plans. Results obtained from an empirical study conducted using DB2 demonstrate the benefits of the SQL extension ...

**16** Query processing in a distributed data base 90%

Diane Jantz , E. A. Unger , R. McBride , Jacob Slonim

Proceedings of the 1983 ACM conference on Personal and small computers December 1983

The current research on optimizing algorithms for queries in distributed data base networks is presented. An identification of additional factors which add cost and time to processing of a query both at a node and in the transporting of data along a link in the network is given. The idea of a user topology is presented as the basis for a query optimization algorithm and the effects of a user's query constraints on the user

topology are illustrated. With the influencing factors on a query re ...

**17** Optimization of join operations in horizontally partitioned database systems 90%

Arie Segev

ACM Transactions on Database Systems (TODS) March 1986

Volume 11 Issue 1

This paper analyzes the problem of joining two horizontally partitioned relations in a distributed database system. Two types of semijoin strategies are introduced, local and remote. Local semijoins are performed at the site of the restricted relation (or fragment), and remote semijoins can be performed at an arbitrary site. A mathematical model of a semijoin strategy for the case of remote semijoins is developed, and lower bounding and heuristic procedures are proposed. The results of comp ...

**18** Managing periodically updated data in relational databases 90%

Avigdor Gal , Jonathan Eckstein

Journal of the ACM (JACM) November 2001

Volume 48 Issue 6

Recent trends in information management involve the periodic transcription of data onto secondary devices in a networked environment, and the proper scheduling of these transcriptions is critical for efficient data management. To assist in the scheduling process, we are interested in modeling *data obsolescence*, that is, the reduction of consistency over time between a relation and its replica. The modeling is based on techniques from the field of stochastic processes, and provides several ...

**19** Processing queries for first-few answers 90%

Roberto J. Bayardo , Daniel P. Miranker

Proceedings of the fifth international conference on Information and knowledge management November 1996

**20** Reformulating query plans for multidatabase systems 90%

Chun-Nan Hsu , Craig A. Knoblock

Proceedings of the second international conference on Information and knowledge management December 1993

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